

## AMENDMENTS TO THE CLAIMS

### **1 to 12. (Canceled)**

**13. (New)** A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst, which catalyst comprises:

(A) a catalyst component A which comprises

(c) ceria or

(d) praseodymium oxide or

(e) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum;

(B) a catalyst component B which comprises

(d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and

(e) a carrier; and

(C) a catalyst component C which comprises

(f) a solid acid, and

(g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese.

**14. (New)** A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst, which catalyst comprises:

an outer catalyst layer comprising a catalyst component A and a catalyst component C, as an outer catalyst component, wherein the catalyst component A comprises

- (A) (a) ceria or
  - (b) praseodymium oxide or
    - (c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and
  - the catalyst component C comprises
- (C) (f) a solid acid, and
  - (g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese; and
    - an inner catalyst layer comprising a catalyst component B, as an inner catalyst component, wherein the catalyst component B comprises
- (B) (d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and
  - (e) a carrier.

**15. (New)** A method as claimed in claim 13 wherein the catalyst component A supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

**16. (New)** A method as claimed in claim 14 wherein the catalyst component A supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

**17. (New)** A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst, which catalyst comprises:

- an outer catalyst layer comprising a catalyst component A and a catalyst component C, as an outer catalyst component, wherein the catalyst component A comprises

(A) (a) ceria or  
(b) praseodymium oxide or  
(c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and  
the catalyst component C comprises

(C) (f) a solid acid, and

(g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese; and

an inner catalyst layer comprising a catalyst component A and a catalyst component C, as an inner catalyst component, wherein the catalyst component A comprises

(A) (a) ceria or

(b) praseodymium oxide or

(c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and

the catalyst component B comprises

(B) (d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and

(e) a carrier.

**18. (New)** A method as claimed in claim 17 wherein at least one of the catalyst component A in the outer catalyst component and the catalyst component A in the inner catalyst component supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

**19. (New)** A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a

catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 13.

**20. (New)** A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 14.

**21. (New)** A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 15.

**22. (New)** A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 16.

**23. (New)** A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 17.

**24. (New)** A method for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact with a

catalyst structure, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 18.

**25. (New)** A catalyst for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, which catalyst comprises:

(A) a catalyst component A comprising

(c) ceria or

(d) praseodymium oxide or

(e) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum;

(B) a catalyst component B comprising

(d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and

(e) a carrier; and

(C) a catalyst component C comprising

(f) a solid acid, and

(g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese.

**26. (New)** A catalyst for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, which catalyst comprises:

an outer catalyst layer comprising a catalyst component A and a catalyst component C, as an outer catalyst component, wherein the catalyst component A comprises

(A) (a) ceria or

- (b) praseodymium oxide or
- (c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and
  - the catalyst component C comprises
- (C) (f) a solid acid, and
  - (g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese; and
    - an inner catalyst layer comprising a catalyst component B, as an inner catalyst component, wherein the catalyst component B comprises
- (B) (d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and
- (e) a carrier.

**27. (New)** A catalyst as claimed in claim 25 wherein the catalyst component A supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

**28. (New)** A catalyst as claimed in claim 26 wherein the catalyst component A supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

**29. (New)** A catalyst for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, which catalyst comprises:

- an outer catalyst layer comprising a catalyst component A and a catalyst component C, as an outer catalyst component, wherein the catalyst component A comprises
- (A) (a) ceria or

- (b) praseodymium oxide or
- (c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and
  - the catalyst component C comprises
- (C) (f) a solid acid, and
  - (g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese; and
    - an inner catalyst layer comprising a catalyst component A and a catalyst component C, as an inner catalyst component, wherein the catalyst component A comprises
- (A) (a) ceria or
  - (b) praseodymium oxide or
  - (c) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; and
    - the catalyst component B comprises
- (B) (d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and
  - (e) a carrier.

**30. (New)** A catalyst as claimed in claim 29 wherein at least one of the catalyst component A in the outer catalyst component and the catalyst component A in the inner catalyst component supports thereon at least one noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof.

**31. (New)** A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact

therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 25.

**32. (New)** A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 26.

**33. (New)** A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 27.

**34. (New)** A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 28.

**35. (New)** A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 29.

**36. (New)** A catalyst structure for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact

therewith, in which the catalyst structure comprises an inactive substrate and the catalyst as claimed in claim 30.